

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Priority Application Serial No. . . . . 09/205,045  
Priority Filing Date . . . . . December 4, 1998  
Inventor . . . . . Charles H. Blankenship  
Assignee . . . . . Golftek, Inc.  
Priority Group Art Unit . . . . . 3729  
Priority Examiner . . . . . R. Chang  
Attorney's Docket No. . . . . GO5-003  
Title: "Golf Club Swing Analyzers and Golf Club Swing Analyzer  
Methods"

PRELIMINARY AMENDMENT

To: Box PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

EL 465855265

From: James D. Shaurette (Tel. 509-624-4276; Fax 509-838-3424)  
Wells, St. John, Roberts, Gregory & Matkin P.S.  
601 W. First Avenue, Suite 1300  
Spokane, WA 99201-3828

Sir:

Please enter the following amendments prior to examining the above-identified application.

AMENDMENTS

In the Title

Please replace the title with the following:

--Golf Club Swing Analyzers--.

### **In the Specification**

At p. 1 before the "Technical Field" section, please insert the following:

### **--RELATED PATENT DATA**

This patent resulted from a divisional application of U.S. Patent Application Serial No. 09/205,045, filed December 4, 1998, entitled "Golf Club Swing Analyzers and Golf Club Swing Analyzer Methods", naming Charles H. Blankenship as inventor and which claimed priority from U.S. Provisional Application Serial No. 60/083,892, filed May 1, 1998, the disclosures of which are incorporated by reference.--

### **In the Claims**

Please cancel claims 1-20 without prejudice.

Please add the following new claims:

21. A golf club swing analyzer comprising:

a light emission device configured to emit reference light toward a swung golf club;

a light reception device configured to receive reference light emitted from the light emission device and reflected from the swung golf club; and

discrimination circuitry coupled with the light reception device and configured to discriminate the received reference light from incidental light and to generate an indication signal responsive to the discrimination of the received reference light and the incidental light.

22. The analyzer of claim 21 wherein the discrimination circuitry is configured to generate the indication signal to indicate the reception of the received reference light.

23. The analyzer of claim 21 wherein the discrimination circuitry is configured to generate the indication signal only responsive to the reception of the received reference light.

24. The analyzer of claim 21 wherein the discrimination circuitry is configured to generate the indication signal responsive to the reception of the received reference light and not to generate the indication signal responsive to a reception of the incidental light within the light reception device.

25. The analyzer of claim 21 wherein the discrimination circuitry is configured to not generate the indication signal responsive to a reception of the incidental light within the light reception device.

26. The analyzer of claim 21 wherein the light emission device is configured to emit the reference light in a pulse having a duration less than a duration of one of a rise time and fall time resulting from the swung golf club blocking reception of incidental light within the light reception device.

27. The analyzer of claim 26 wherein the discrimination circuitry is configured to generate a timed pulse responsive to at least one of the received reference light and incidental light being received within the light reception device, the timed pulse having a duration greater than a duration of the reference light pulse and less than an individual one of the rise time and fall time.

28. The analyzer of claim 21 further comprising:

a processor coupled with the discrimination circuitry and configured to process the indication signal; and

a display coupled with the processor and wherein the processor is configured to control the display to indicate detection of the swung golf club responsive to processing of the indication signal.

29. The analyzer of claim 21 further comprising:

a plurality of light emission devices provided in a plurality of predefined positions upon a housing; and

a plurality of light reception devices provided in a plurality of corresponding positions upon the housing.

30. A golf club swing analyzer comprising:

circuitry configured to receive reference light from a swung golf club, to receive incidental light, to discriminate the received reference light from the received incidental light, and to generate an indication signal to indicate the reception of the received reference light responsive to the discrimination.

31. The analyzer of claim 30 wherein the circuitry is configured to generate the indication signal only responsive to the reception of the received reference light.

32. The analyzer of claim 30 wherein the circuitry is configured to generate the indication signal responsive to the reception of the received reference light and not to generate the indication signal responsive to the reception of the received incidental light.

33. The analyzer of claim 30 wherein the circuitry is configured not to generate the indication signal responsive to the reception of the received incidental light.

34. The analyzer of claim 30 further comprising circuitry configured to emit the reference light toward the swung golf club.

35. The analyzer of claim 34 wherein the received incidental light comprises any light received by the circuitry configured to receive reference light and not emitted by the circuitry configured to emit the reference light.

36. The analyzer of claim 30 further comprising circuitry configured to emit the reference light in a pulse having a duration less than a duration of one of a rise time and fall time resulting from the swung golf club blocking the reception of incidental light.

37. The analyzer of claim 30 further comprising a display coupled with the circuitry and configured to indicate detection of the swung golf club responsive to the indication signal.

38. A golf club swing analyzer comprising:

a light reception device configured to receive reference light from a swung golf club and to receive incidental light;

circuitry coupled with the light reception device and configured to generate an indication signal responsive to the reception of the received reference light and not to generate the indication signal responsive to the reception of the received incidental light; and

a display coupled with the circuitry and configured to indicate detection of the swung golf club responsive to the generated indication signal.

39. The analyzer of claim 38 further comprising a light emission device configured to emit the reference light toward the swung golf club.

40. A golf club swing analyzer comprising:

a housing;

a light emission device configured to emit reference light in a substantially vertical direction toward a location in a path of a golf club swung adjacent the housing;

a light reception device supported by the housing and configured to receive reference light emitted from the light emission device and reflected from the swung golf club, wherein the light emission device is configured to emit the reference light in a plurality of pulses individually having a duration less than the duration of one of the rise time and fall time resulting from the golf club blocking incidental light from the light reception device; and

discrimination circuitry coupled with the light reception device and configured to discriminate the reflected reference light received from the light emission device from incidental light by generating a timed pulse responsive to reference light being received within the light reception device, the timed pulse having a duration greater than the duration of the reference light pulses and less than an individual one of the rise time and fall time.



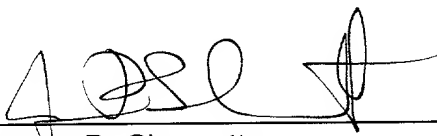
### REMARKS

This application is a divisional application of U.S. Patent Application Serial No. 09/205,045. Claims 1-20 have been canceled without prejudice. Claims 21-40 remain in the application for consideration.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 2/16/01

By:   
James D. Shaurette  
Reg. No. 39,833

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Assistant Commissioner for Patents  
Washington, D. C. 20231  
Attention: Official Draftsman

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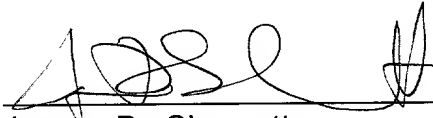
**SUBSTITUTE DRAWING REQUEST**

Please enter the enclosed substitute sheets in the above-referenced application in place of sheets originally filed. These substitute formal sheets are being submitted to correct the drawings. A red-inked copy of the sheets showing the corrections is submitted along with the formal drawing sheets.

Acknowledgment of receipt of the formal drawing sheets and their acceptance into the file is requested.

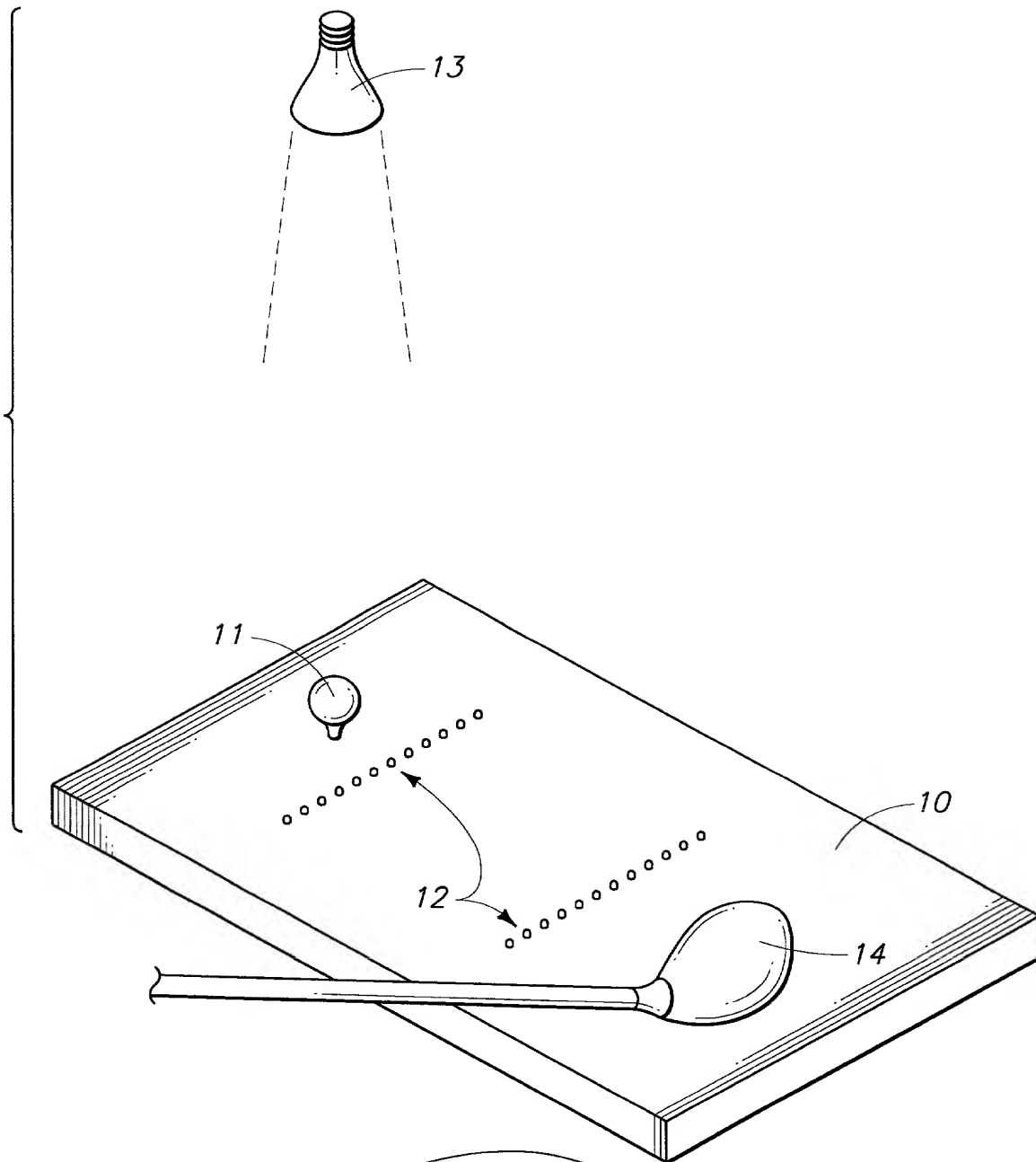
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Respectfully submitted,

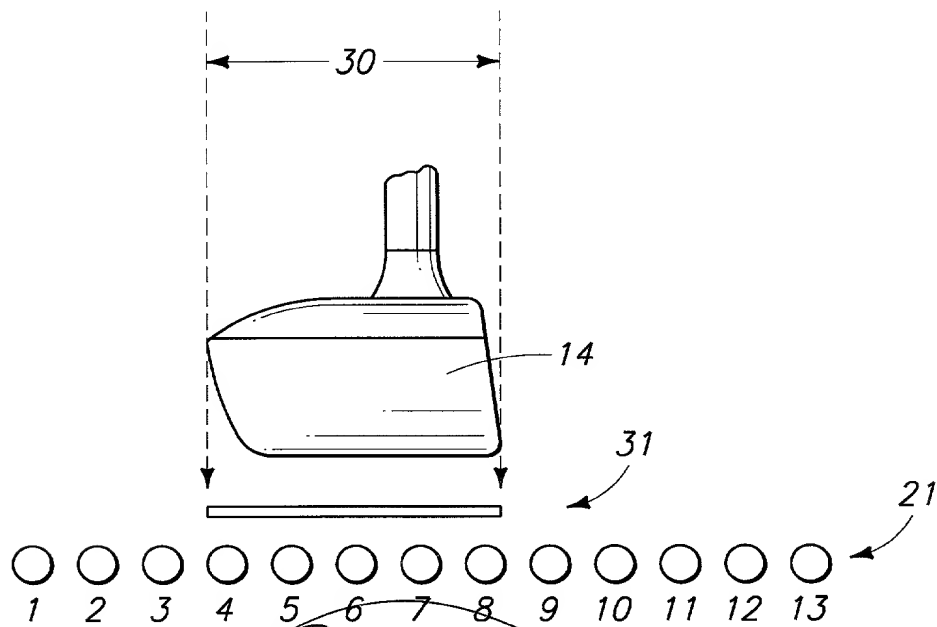
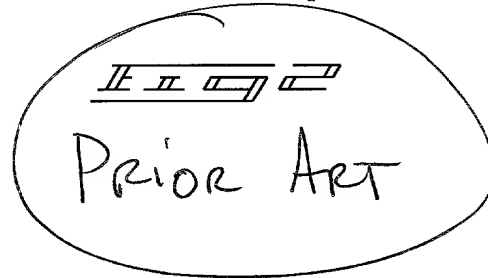
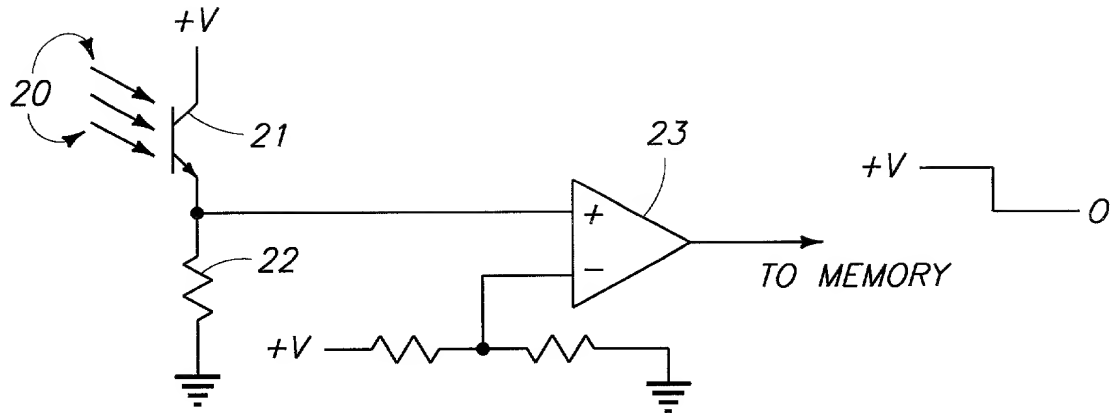
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Enclosures: Red-Inked Sheets 1-4.

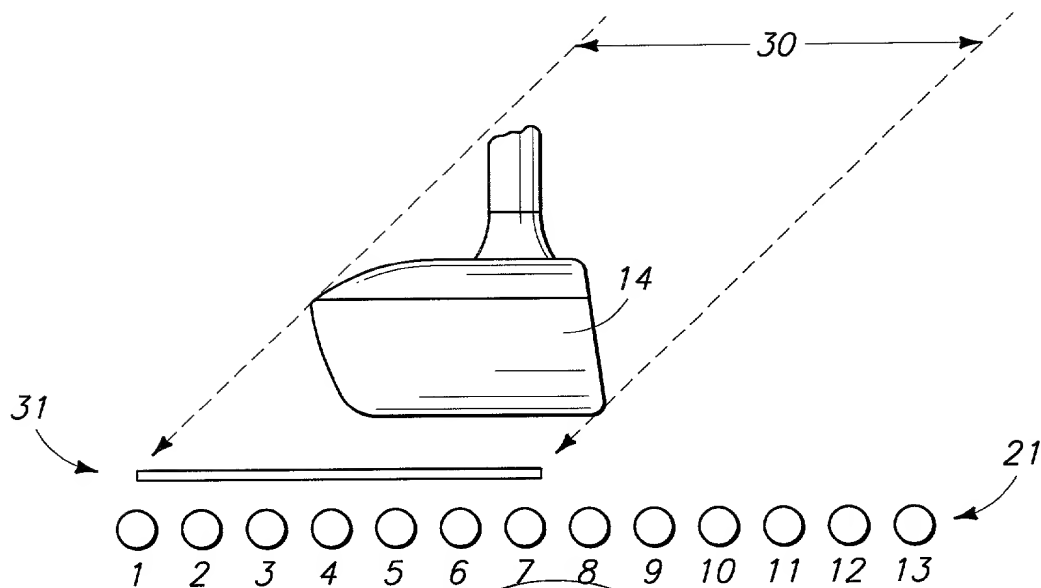
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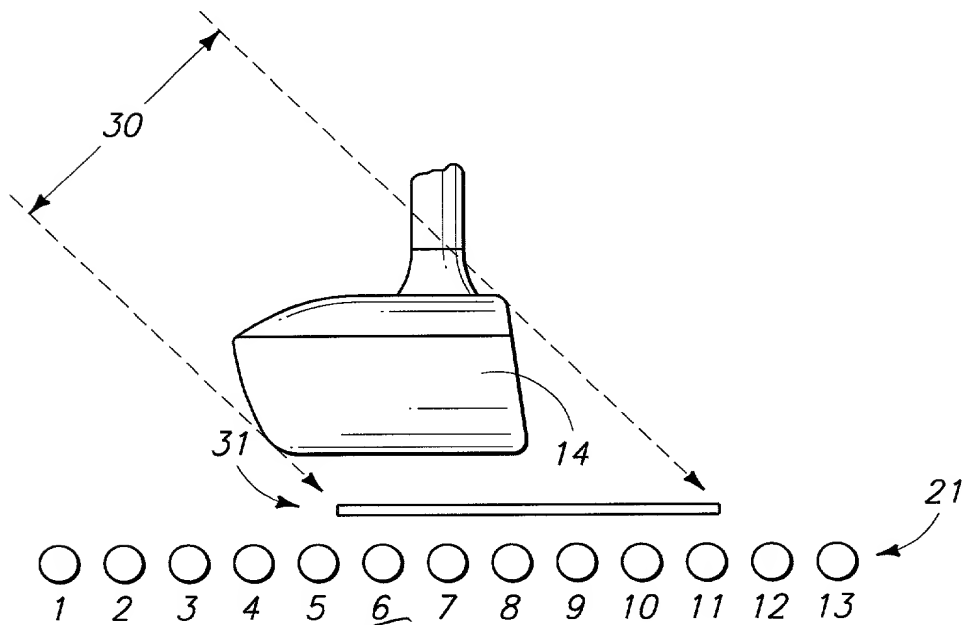
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Prior Art



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